

## CLAIMS

- 1     1.     A method of managing a computer information database that contains computer  
2     profile data for computers, the method including the steps of:
  - 3         A. determining a tree structure of groups for the computers based on primary  
4         grouping criteria and secondary grouping criteria;
  - 5         B. including in a database mapping table fields that correspond to primary  
6         grouping criteria and secondary groupings criteria for the computers, and including in the  
7         fields in respective table records values for profile data of interest that correspond to the  
8         primary groupings and secondary groupings, the table further including in the records  
9         information that identifies the respective groups to which the values apply;
  - 10        C. receiving for inclusion in the database computer profile data from a plurality of  
11        computers;
  - 12        D. for the profile data from a given computer
    - 13           extracting data that corresponds to the profile data of interest for the pri-  
14           mary groupings and the secondary groupings,
    - 15           querying the table to determine if the extracted data correspond to the val-  
16           ues that are included in the primary grouping and secondary grouping fields in  
17           any of the records in the table, and
    - 18           if the query results in one or more table records that include secondary low  
19           values, assigning the computer to the group named in the first record found,
    - 20           if the query results in no records, assigning the computer to a default  
21           group, or
    - 22           if the query results in multiple records and there are no corresponding sec-  
23           ondary low values in the records, assigning the computer to the group in the last  
24           record found; and
  - 25         E. manipulating the data from the database to produce reports that summa-  
26         rize the attributes of the computers in the groups, with each report for a given  
27         group including therein the attributes of the computers in the groups that are on a  
28         sub-tree with the given group as its root

- 1    2. The method of claim 1 wherein one or more table records includes secondary grouping  
2    values set to NULL.
- 1    3. The method of claim 1 wherein the values associated with the primary groupings are  
2    ranges and the step of determining if the extracted data correspond to the values further  
3    includes determining if the corresponding extracted data of interest falls within one of the  
4    primary grouping ranges.
- 1    4. The method of claim 3 wherein the values associated with the secondary groupings are  
2    ranges and the step of determining if the extracted data correspond to the values further  
3    includes determining if the corresponding extracted data of interest falls within one of the  
4    secondary grouping ranges.
- 1    5. The method of claim 1 wherein the step of querying further includes determining if the  
2    extracted data corresponds to the primary grouping criteria and a secondary low value of  
3    NULL or the empty set.
- 1    6. The method of claim 1 wherein the primary and secondary grouping criteria are user-  
2    specified.
- 1    7. A method of managing a computer information database that contains computer profile  
2    data for computers, the method including the steps of:  
3        A. determining a tree structure of groups for the computers based on primary  
4        grouping criteria;  
5        B. including in a database mapping table fields that correspond to a range of val-  
6        ues for profile data of interest corresponding to primary grouping criteria used to include  
7        the computers in groups for profile data reporting, and including in the fields in respec-  
8        tive table records high and low values for the primary grouping profile data of interest,  
9        the table further including in the records information that identifies the respective groups  
10      to which the values apply;

11 C. receiving for inclusion in the database computer profile data from a plurality of  
12 computers;  
13 D. for the profile data from a given computer  
14 extracting data that correspond to the primary grouping profile data of in-  
15 terest,  
16 querying the table to determine if the extracted data fall withing the pri-  
17 mary grouping criteria ranges included in the table records, and  
18 if the query results in one or more table records assigning the computer to  
19 the group named in the first record found, or  
20 if the query results in no records, assigning the computer to a default  
21 group; and  
22 E. manipulating the data from the data base to produce reports that summarize the  
23 attributes of the computers in the groups, with the report for a given group in-  
24 cluding therein the attributes of the computers in the groups that are on a sub-tree  
25 with the given group as its root.

1 8. The method of claim 1 further including the steps of  
2 including in the table a range of values for profile data of interest corresponding  
3 to secondary grouping criteria used to include the computers in groups for profile data  
4 reporting, and including in the fields in respective table records high and low values for  
5 the secondary grouping profile data of interest, and  
6 for the profile data from a given computer  
7 further extracting data that correspond to the secondary grouping profile  
8 data of interest,  
9 further querying the table to determine if the further extracted data fall  
10 withing the secondary grouping criteria ranges included in the table records, and  
11 if the query results in one or more table records that include secondary low  
12 values, assigning the computer to the group named in the first record found,  
13 if the query results in no records, assigning the computer to a default  
14 group, or

15                   if the the query results in multiple records and there are no corresponding  
16           secondary low values in the records, assigning the computer to the group in the  
17           last record found.

1    9. The method of claim 8 wherein the step of querying further includes determining if the  
2    extracted data corresponds to the primary grouping criteria and a secondary low value of  
3    NULL or the empty set.